UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,333	01/02/2004	Sekhar Sarukkai	21756-015100	7608

51206   7590   04/21/2009
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ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
04/21/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/751,333	SARUKKAI ET AL.
	Examiner	Art Unit
	Thuy Dao	2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 December 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11/14/08</u>.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment filed on December 23, 2009.

2. Claims 1-21 have been examined.

Response to Amendments

3. In the instant amendment, claim 1 has been amended.

Response to Arguments

4. 35 USC 103(a) rejection, Karkare in view of Gove (Remarks, pp. 8-9):

      a) Karkare explicitly teaches:

      (1). the component repository (e.g., FIG. 5, Application 52 stored in memory (component repository) coupled with Virtual Machine 62 and Operating system 66, col.12: 6-47);

      (2). the development environment (e.g. FIG. 4, Enterprise tools 42, System tools 44, Java code editor to write Application 52, col.10: 31-38);

      (3). the development runtime environment (e.g., FIG. 4, Virtual Machine 54 and Application Profiler 46, col.2: 36-58,

> "The present invention provides a profiling system for runtime environments that include a software application written in a platform-independent programming language, a non-application-code component invoked by the software application and a profiling tool for generating a runtime metric. The runtime metric includes an application metric and a non-application-code metric. The profiling tool generates the application metric from the software application and the non-application-code metric from the non-application-code component.
>
> The present invention also provides a method for profiling the runtime environment of an application-code component by executing the application-code component in a runtime environment that includes a non-application code component,

running a profiler with respect to the executing application-code component, generating an <u>application-code metric</u> from the application-code component with the profiler, and creating a <u>non-application-code metric</u> from the non-application-code component with the profiler. The application-code metric and the non-application-code metric are preferably generated from one execution of the application-code component in a <u>runtime environment</u>." (emphasis added).

(4). the data collector (e.g., FIG. 4, Profiler 45 includes and Application Profiler 46, Native Code Profiler 48 and Kernel Profiler 50, col.9: 16-45).

b) Limitations at issue *"determining an application component to be monitored in the development environment, the application component having associated information in a component repository of the development runtime environment; wherein the component repository is configured to provide a list of components that are available to be invoked by the development runtime environment"* (e.g., claim 1, lines 4-7 and Remarks, page 9).

The examiner respectfully disagrees. Karkare explicitly teaches:

determining an application component to be monitored in the development environment, the application component having associated information in a component repository of the development runtime environment (e.g., FIG. 4, determining a specific application 52 to be monitored; FIG. 6, Running Application 52 is selected and monitored);

wherein the component repository is configured to provide a list of components that are available to be invoked by the development runtime environment (e.g., FIG. 4, from Enterprise Tools 42, System Tools 44 and/or Java code editor to write Application 52, selecting and running said Application 52, col.10: 31-38;

FIG. 5, a sample application stored in memory coupled with Virtual Machine 62 and Operating system 66, "Moreover, use of the profiling system 20 does not require any special preparation of the software application. The profiling system 20 can be invoked either before or after the software application to be profiled is executed", i.e., one or more software applications to be profiled, selecting/invoking the software application to be profiled, and invoking the profile system 20 either before or after executing the software application to be profiled).

Karkare discloses integrating the profiler with the enterprise tools and/or system tools (col.10: 39-58 and col.11: 10-19) but not explicitly discloses *integrating the profiler with an integrated development environment IDE*.

However, in an analogous art, Gove further discloses *an IDE includes a profiler* (e.g., [0007], FIG. 4, [0019], [0021], and [0023]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so to collect profiles of applications and merge the functionality of the profiler into that of the IDE as suggested by Gove (e.g., [0007] and [0023]).

5. 35 USC rejection, Agarwal in view of Allan (Remarks, pp. 9-12):

In view of Applicant's detailed explanation/mappings, the examiner acknowledges the claimed priority date January 2, 2003 of the provisional applications 60/437,441 and 60/437,443.

Accordingly, the 35 USC 103(a) rejection over Agarwal in view of Allan has been withdrawn.

In conclusion, the examiner respectfully maintains ground of the 35 USC §103(a) rejection over claims 1-21 as being unpatentable over Karkare in view of Gove.

Claim Rejections – 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karkare (art of record, US Patent No. 7,266,810) in view of Gove (art of record, US Patent Publication No. 2004/0006760 A1).

Claim 1:

Karkare discloses a method, system, and computer program product *for integrating run-time metrics into a development environment,*

the development environment (e.g. FIG. 4, Enterprise tools 42, System tools 44, Java code editor to write Application 52, col.10: 31-38)

including a runtime environment (e.g., FIG. 4, Virtual Machine 54 and Application Profiler 46, col.2: 36-58; col.6: 45-67) *and*

a user interface environment (e.g., FIG. 2-3, GUI of Profiler 45), *the method comprising:*

determining an application component to be monitored in the development environment, the application component having associated information in a component repository of the development runtime environment (e.g., FIG. 4, determining a specific application 52 to be monitored; FIG. 6 "Running Application 52" and "Profiler 45");

wherein the component repository (e.g., FIG. 5, Application 52 stored in memory coupled with Virtual Machine 62 and Operating system 66, col.12: 6-47)

is configured to provide a list of components that are available to be invoked by the development runtime environment (e.g., FIG. 4, from Enterprise Tools 42 and System Tools 44, selecting and running Application 52);

monitoring the application component in the development runtime environment to determine a plurality of metrics associated with the application component (e.g., FIG. 4, Profiler 45 includes and Application Profiler 46, Native Code Profiler 48 and Kernel Profiler 50, col.9: 16-45);

transmitting the plurality of metrics to a data collector of the development environment user interface; and displaying the metrics to a user of the development environment (e.g., FIG. 3, col.9: 46 – col.10: 20).

Karkare discloses integrating the profiler with the enterprise tools and/or system tools (col.10: 39-58 and col.11: 10-19) but not explicitly discloses *integrating the profiler with an integrated development environment IDE*.

However, in an analogous art, Gove further discloses *an IDE includes a profiler* (e.g., [0007], FIG. 4, [0019], [0021], and [0023]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching.   One would have been motivated to do so to collect profiles of applications and merge the functionality of the profiler into that of the IDE as suggested by Gove (e.g., [0007] and [0023]).

Claim 2:

The rejection of claims 2 is incorporated. Gove further discloses *providing, to the user of the IDE, an alert notifying the user of an error condition generated by the application component in production* (e.g., FIG. 2, block 204-208 and related text; FIG. 4, IDE 400 with Debug component 420).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching.   One would have been motivated to do so to as set forth above.

Claim 3:

The rejection of claims 2 is incorporated. Karkare also discloses *providing an alert comprises displaying, for the user, a list of alerts generated since a last login by the user* (e.g., col.3: 55 – col.4: 47, col.10: 23-58).

Claim 4:

The rejection of claims 2 is incorporated. Karkare also discloses *providing an alert comprises sending an alphanumeric page to the user* (e.g., col.5: 5 - col.6: 43, col.10: 59 – col.11: 43).

Claim 5:

The rejection of claims 1 is incorporated. Gove further discloses *providing a policy manager in the IDE to allow the user to specify an operational concern for the application component; communicating the specified operational concern to a policy agent in the IDE runtime environment; and enforcing the operational concern with the policy agent during operation of the application component* (e.g., [0007]-[0010] and [0028]-[0032]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so to as set forth above.

Claim 6:

The rejection of claims 5 is incorporated. Karkare also discloses *the operational concern is selected from the group consisting of a logging policy, an authentication policy, an encryption policy, and a caching policy* (e.g., col.7: 14 – col.8: 36; col.12: 6-64).

Claim 7:

The rejection of claims 1 is incorporated. Gove further discloses *allowing the user to create the application component in the IDE; and automatically registering the application component, when it has been created, with the component repository* (e.g., [0020]-[0024], [0032]-[[0036]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 8:

The rejection of claims 7 is incorporated. Gove further discloses *determining an application component to be monitored comprises: providing, from the component repository, a list of application components that can be invoked; and allowing the user of the IDE to specify an application component to be opened in the IDE runtime environment* (e.g., [0024]-[0029]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 9:

Claim 9 is a computer program version, which recites the same limitations as those of claim 1, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 9.

Claim 10:

Karkare discloses *a computer system comprising a processor and a computer readable medium, the computer readable medium having stored thereon a computer program executable by the processor, the computer program comprising:*

a component repository configured to maintain a list of available application components that can be invoked by a development environment runtime

environment (e.g., FIG. 4, determining a specific application 52 to be monitored; FIG. 6 "Running Application 52" and "Profiler 45");

an development runtime environment configured to open an application component and monitor operation of the application component to determine a plurality of metrics associated with the application component (e.g., FIG. 4, from Enterprise Tools 42 and System Tools 44, selecting and running Application 52)*; and*

a development environment user interface configured to allow a user to perform software development tasks (e.g., (e.g., FIG. 4, Enterprise/System Tools, Profiler; col.2: 36-58; col.6: 45-67)*, the development environment user interface comprising:*

an instrumentor in communication with the development runtime environment, the instrumentor being configured to allow a user to control operation of the development runtime environment (e.g., col.5: 56 – col.6: 14; col.15: 29 – col.16: 35)*; and*

a data collector in configuration with the development runtime environment, the data collector being configured to display at least some of the plurality of metrics associated with the application component (e.g., FIG. 3, profiling data collected and displayed in GUI of Profiler 45, col.9: 16-45)*.*

Karkare discloses integrating the profiler with the enterprise tools and/or system tools (col.10: 39-58 and col.11: 10-19) but not explicitly discloses *integrating the profiler with an integrated development environment IDE.*

However, in an analogous art, Gove further discloses *an IDE includes a profiler* (e.g., [0007], FIG. 4, [0019], [0021], and [0023]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so to collect profiles of applications and merge the functionality of the profiler into that of the IDE as suggested by Gove (e.g., [0007] and [0023]).

Claim 11:

The rejection of claims 10 is incorporated. Gove further discloses *the IDE runtime environment comprises the component repository* (e.g., [0006]-[0014], [0026]-[0032]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 12:

The rejection of claims 10 is incorporated. Gove further discloses *the IDE user interface comprises a monitor, and wherein the monitor comprises the instrumentor and the data collector* (e.g., [0020]-[0024], [0030]-[0036]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 13:

The rejection of claims 11 is incorporated. Gove further discloses *the IDE user interface further comprises a policy manager configured to allow the user to specify an operational concern for the application component, and wherein the IDE runtime environment comprises a policy agent in communication with the policy manager, the policy agent being configured to receive the operational concern from the policy agent and enforce the operational concern during operation of the application component* (e.g., [0004]-[0014] and [0022]-[0028]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 14:

The rejection of claims 10 is incorporated. Gove further discloses *the IDE runtime environment comprises: a listener in communication with the instrumentor, the listener being configured to receive instructions from the instrumentor for controlling operation of*

the IDE runtime environment; and a sender in communication with the data collector, the sender being configured to translate events generated by the operation of the application component into messages, and to send the messages to the data collector (e.g., [0008]-[0012] and [0020]-[0026]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 15:

The rejection of claims 10 is incorporated. Gove further discloses *allow the user to create an application component in the IDE user interface; and automatically register the application component, when it has been created, with the component repository* (e.g., [0011]-[0014] and [0022]-[0028]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 16:

The rejection of claims 10 is incorporated. Gove further discloses *the instrumentor is configured to allow a user to control operation of the IDE runtime environment by specifying a particular application component that should be monitored* (e.g., [0020]-[0024] and [0030]-[0036]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 17:

The rejection of claims 10 is incorporated. Gove further discloses *the instrumentor is configured to allow a user to control operation of the IDE runtime*

environment by setting a context for the application component to be monitored (e.g., [0022]-[0030]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 18:

The rejection of claims 17 is incorporated. Karkare also discloses *the metrics displayed by the data collector are related to the context specified by the instrumentor* (e.g., col.5: 56 – col.6: 28).

Claim 19:

The rejection of claims 10 is incorporated. Gove further discloses *the IDE runtime environment is configured to monitor application components in a production environment* (e.g., col.4: 9 - col.5: 35).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Claim 20:

The rejection of claims 19 is incorporated. Karkare also discloses *the component repository is configured to maintain a list of available application components that can be invoked either in the production environment or in a development environment* (e.g., col.1: 46 – col.2: 14; col.2; 36 – col.3: 67).

Claim 21:

The rejection of claims 10 is incorporated. Gove further discloses *the IDE user interface communicates with the IDE runtime environment using one or more protocols selected from the group consisting of the simple object access protocol ("SOAP"), the*

java message service, and remote method invocation (e.g., [0004]-[0014] and [0022]-[0030]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gove's teaching into Karkare's teaching. One would have been motivated to do so as set forth above.

Conclusion

8. **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/   /Tuan Q. Dam/

Examiner, Art Unit 2192   Supervisory Patent Examiner, Art Unit 2192